



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,821	10/23/2003	William F. Gracbe JR.	10286-008-43048	6330
33513 7590 08/08/2007 GALLOP, JOHNSON & NEUMAN, L.C. 101 S. HANLEY, SUITE 1600 ST. LOUIS, MO 63105			EXAMINER SINGH, SUNIL	
			ART UNIT 3673	PAPER NUMBER
			MAIL DATE 08/08/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/691,821

Applicant(s)

GRAEBE, WILLIAM F.

Examiner

Sunil Singh

Art Unit

3673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 and 32-36 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-23 and 34-36 is/are allowed.
- 6) ☒ Claim(s) 24-30, 32 and 33 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graebe, Jr. '313. in view of Jay (US 4726624)

Graebe, Jr. discloses an air cushion control system comprising an air chamber sensor (34) including an air chamber (see Fig. 1), a bottom out sensor (80,88), and an overinflation sensor (82,90), an air pump (40) to inflate the air chamber, an air valve (52,62) to release air from the air chamber, means (46,50,54,58) to connect the air cushion control system to an air cushion (see col. 3 line 35+) and a microprocessor (74) to control the inflation and the release of the air from the air chamber. A housing (30,12). An alarm is sounded when in the bottom-out condition (col. 4 line 15). Graebe, Jr. discloses the invention substantially as claimed. However, Graebe is silent about the distance from an edge of the air chamber sensor to an end of the channel wall does not exceed one half of the distance between the channel walls. Jay teaches the distance from an edge of the air chamber sensor to an end of the channel wall does not exceed one half of the distance between the channel walls (see Fig. 3, (34), see col. 7). It would have been considered obvious to one of ordinary skill in the art to modify Graebe, Jr. by making the distance from an edge of the air chamber sensor to an end of

Art Unit: 3673

the channel wall does not exceed one half of the distance between the channel walls as taught by Jay in order to control the volume of filling material.

3. Claims 28-30, 32, 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graebe, Jr. '313. in view of Johnson (US 5450638)

Graebe, Jr. discloses an air cushion control system comprising an air chamber sensor (34) including an air chamber (see Fig. 1), a bottom out sensor (80,88), and an overinflation sensor (82,90), an air pump (40) to inflate the air chamber, an air valve (52,62) to release air from the air chamber, means (46,50,54,58) to connect the air cushion control system to an air cushion (see col. 3 line 35+) and a microprocessor (74) to control the inflation and the release of the air from the air chamber. A housing (30,12). An alarm is sounded when in the bottom-out condition (col. 4 line 15). Graebe, Jr. discloses the invention substantially as claimed. However, Graebe is silent about including support strips in his air channels. Johnson teaches support strips in air channels (see Fig. 3). It would have been considered obvious to one of ordinary skill in the art to modify Graebe Jr. to include support strips as taught by Johnson in order to increase the durability of the structure.

Allowable Subject Matter

4. Claims 1-23, 34-36 are allowed.

Response to Arguments

5. Applicant's arguments filed 5/21/07 have been fully considered but they are not persuasive. Applicant argues that it is not obvious to modify Graebe, Jr. '313 in view of Jay since there is no teaching of substituting the air of '313 with the fluid 28 material of Jay. It should be noted that the examiner is not substituting one fluid for another.

Instead, the examiner is modifying Graebe, Jr. by making the distance from an edge of the air chamber sensor to an end of the channel wall does not exceed one half of the distance between the channel walls as taught by Jay in order to control the volume of filling material.

Applicant argues that it is not obvious to modify Graebe, Jr. '313 to include the support strips as taught by Johnson since the "support strip" is actually an "erecting mechanism" that is not located longitudinally and is mounted external of the air chamber. It should be noted that the arguments are far more limiting than the claimed subject matter, since there is no requirement for longitudinally mounted support strips. Second of all the "erecting mechanism" (4a,4b) is not what is considered as the support strip. Instead, members (11a,b) is considered as the support strips and they are mounted within the air bladder.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sunil Singh whose telephone number is (571) 272-7051. The examiner can normally be reached on Monday through Friday 10:30 AM - 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Engle Patricia can be reached on (571) 272-6660. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3673

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sunil Singh
Primary Examiner
Art Unit 3673



SS

SP

8/1/07